

**COMMONWEALTH OF VIRGINIA**  
**Department of Environmental Quality**  
**West Central Regional Office**  
**STATEMENT OF LEGAL AND FACTUAL BASIS**

M W Manufacturers, Inc.  
433 North Main Street, Rocky Mount, Virginia  
Permit No. WCRO-30386

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, MW Manufacturers, Inc., has applied for a Title V Operating Permit renewal for its window and door manufacturing plant in Rocky Mount. The Department reviewed the application for permit renewal and has prepared a Title V Operating Permit.

Engineer/Permit Contact:\_\_\_\_\_ Date:\_\_\_\_\_

Air Permit Manager:\_\_\_\_\_ Date:\_\_\_\_\_

## **FACILITY INFORMATION**

### Permittee

MW Manufacturers, Inc.  
433 North Main Street  
Rocky Mount VA 24151

### Facility

MW Manufacturers, Inc.  
433 North Main Street  
Rocky Mount VA 24151

County-Plant Identification Number: 51-067-0023  
Registration No.: 30284

First Renewal of Title V Operating Permit

## **SOURCE DESCRIPTION**

NAICS Code: 321911 - Windows, wood and covered wood, manufacturing  
SIC Code 2431 – Windows and doors

This plant primarily manufactures wood and vinyl clad windows and doors. The plant has been in existence at its current location since the 1940's and the plant received its first air permit on June 27, 1974. The facility is a Title V major source of VOC and Sulfur Dioxide (PTE SO<sub>2</sub> = 134.8 tpy). This source is located in an attainment area for all pollutants, and is a PSD major source due to permitted VOC emission limits. The facility is presently permitted under a Minor NSR Permit issued on September 26, 2005.

The boiler is used for space heating purposes only and (currently) the primary fuel is coal.

The original Title V operating permit was issued on September 28, 2001 and amended on October 28, 2004. This permit has expired but the facility is operating under application shield since their renewal application was submitted in a timely fashion

This permit incorporates one underlying NSR permit dated July 23, 2007. The facility requested a modification to the September 26, 2005 NSR permit to allow for enforceable throughput limits for water-based frame primer and water-based enamel in terms of VOC throughput instead of gallons of material used. The initial throughput limits were based on higher VOC content materials and the facility was approaching the gallons/year throughput limits but was still well below the allowed VOC emission limit based on that throughput. The underlying NSR permit now reflects a throughput limit in terms of VOCs based on the VOC emission limit for that same process (Conditions 11 and 12).

### **COMPLIANCE STATUS**

The facility was last inspected on August 3, 2006. It was found to be in compliance.

### EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

Emission units at this facility include:

Unit Ref. No.	Emission Unit Description	Size/Rated Capacity *	Pollution Control Device	Pollutant Controlled	Applicable Permit and Federal Rules
<b>Fuel Burning Equipment</b>					
1	CNB Tri-Fuel Boiler	21.32 MMBtu/hr (coal) 17 MMBtu/hr (wood)	Custom Multicyclone	PM	NSR 07/23/2007
<b>Wood Processes</b>					
2	Dual Vapor Pressure (DVP) Solvent-Based Wood Preservation Process	141,396 gal.yr	none	--	NSR 07/23/2007
3	Water-Based Wood Preservation Process - dipping and drying	100,000 gal/yr	none	--	NSR 07/23/2007
4	Wood Parts Priming - 1 Rollcoat primer unit - 3 Spraycoat primer units	--	none	--	NSR 07/23/2007
5	wood milling/machining	20,000,000 bdft/yr	Pneumafil Baghouse	PM	NSR 07/23/2007 CAM

### **EMISSIONS INVENTORY – Actual Emissions**

Actual plant emissions for calendar year 2005 as listed in the DEQ CEDS annual emission inventory system are summarized below:

<b>2006 Actual Pollutant Emissions in Tons per Year</b>						
	CO	VOC	SO <sub>2</sub>	PM/PM <sub>10</sub>	NO <sub>2</sub>	HAPs/VHAPs
TOTAL	2.789	120.229	7.859	5.115 / 4.892	2.408	0.946*

\* glycol ethers = 0.604 tons  
hydrogen flouride = 0.038 tons  
hydrogen chloride = 0.304 tons

### **NSPS, MACT, and CAM APPLICABILITY**

NSPS - There are no applicable NSPS for this facility.

MACT - no manufacturing MACTs are applicable to this facility.

Boiler MACT (Subpart DDDDD) - has been vacated.

CAM (Compliance Assurance Monitoring) is applicable to the woodworking operations since the potential to emit is greater than 100 tons/yr of uncontrolled PM<sub>10</sub> emissions to any control device (baghouse).

CAM (Compliance Assurance Monitoring) - potential to apply to multicyclone controlling PM<sub>10</sub> emissions from the boiler - does NOT apply since the boiler's potential to emit PM<sub>10</sub> burning wood fuel (8760 hours) is 26.8 tons per year; potential to emit burning coal (8760 hours) is 46.7 tons per year.

### **CHANGES TO PLANT**

The facility acquired a permit on September 26, 2005 to install a dual vacuum/pressure (DVP) wood preservative system to replace the open tank dip operation for solvent-based wood preservation. The DVP system was installed in early 2007 and is now operational - the old open-top tanks have been removed from site.

### **CHANGES TO PERMIT**

This Title 5 permit has been modified once since it was originally issued on September 28, 2001. On October 28, 2004, an Administrative Permit Amendment was completed to identify an

additional insignificant emission unit and to correct the expiration date on the permit. This first renewal will incorporate the following changes:

- remove the solvent-based wood dipping operations (3 tanks)
- add the DVP system for solvent-based wood treatment
- change throughput limits for water-based frame primer and water-based enamel from gallons per year to tons VOC per year
- update applicable permit reference to July 23, 2007 NSR permit
- include CAM plan for baghouses on woodworking equipment (Appendix A)

## **REPORTING**

The permittee shall submit reports as follows:

- Annual Title V Compliance Certifications  
to DEQ and EPA (Region III) by March 1 for the previous calendar year;
- Semi-annual Title V Reports  
to DEQ by March 1 and September 1 of each year (time periods to be addressed are January 1 to June 30 and July 1 to December 31); and
- Malfunction or Deviation reports  
to DEQ within 4 daytime business hours after discovery of any malfunctions and any deviations from permit requirements that may cause excess emissions for more than one hour.

## **GENERAL CONDITIONS**

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110 that apply to all facilities operating under a Federal operating permit. Selected requirements are noted below:

### **B. Permit Expiration**

This condition refers to the five year permit term, to the permittee's responsibility to apply for renewal, to the State Air Pollution Control Board taking action on a permit application, and to the prior terms and conditions remaining in effect until the renewal is issued or denied. The authority to take action on permit application(s) has been delegated to the Regions as allowed by §2.1-20.01:2 and §10.1-1185 of the *Code of Virginia*, and the "Department of Environmental Quality Agency Policy Statement No. 3-2001".

### **J. Permit Modification**

This condition cites the following sections from the Virginia Regulations for the Control and Abatement of Air Pollution:

- 9 VAC 5-80-50 -- Applicability, Federal Operating Permit For Stationary Sources
- 9 VAC 5-80-190 -- Changes to Permits.
- 9 VAC 5-80-260 -- Enforcement.
- 9 VAC 5-80-1100 -- Applicability, Permits For New and Modified Stationary Sources
- 9 VAC 5-80-1605 -- Applicability, Permits For Major Stationary Sources and Modifications Located in Prevention of Significant Deterioration Areas

#### **U. Malfunction as an Affirmative Defense**

The Virginia Regulations for the Control and Abatement of Air Pollution contain two reporting requirements for malfunctions that coincide. Reporting requirements are listed in sections 9 VAC 5-80-250 and 9 VAC 5-20-180. Malfunction requirements are listed in General Conditions U and F.

This condition cites the following sections from the regulations:

- 9 VAC 5-20-180 Facility and Control Equipment Maintenance or Malfunction
- 9 VAC 5-80-110 Permit Content

#### **Y. Asbestos Requirements**

The Virginia Department of Labor and Industry under Section 40.1-51.20 of the Code of Virginia also holds authority to enforce 40 CFR 61 Subpart M, National Emission Standards for Asbestos.

This general condition contains citations from the Code of Federal Regulations as follows:

- 40 CFR 61.145, NESHAP Subpart M. National Emissions Standards for Asbestos as it applies to demolition and renovation.
- 40 CFR 61.148, NESHAP Subpart M. National Emissions Standards for Asbestos as it applies to insulating materials.
- 40 CFR 61.150, NESHAP Subpart M. National Emissions Standards for Asbestos as it applies to waste disposal.

#### **STATE ONLY APPLICABLE REQUIREMENTS**

This permit contains a State Only section for toxics (2-butoxyethanol) emissions from the water-based frame priming system.

#### **FUTURE APPLICABLE REQUIREMENTS**

No future applicable requirements.

#### **INAPPLICABLE REQUIREMENTS**

The startup, shut down, and malfunction opacity exclusion listed in 9 VAC 5-40-20 A 3 (for pre-1972 existing emission units) cannot be included in any Title V permit because this portion of

the regulation is not part of the federally approved state implementation plan (SIP). The opacity standard applies to existing sources at all times including startup, shutdown, and malfunction. Opacity exceedances during malfunction can be affirmatively defended provided all requirements of the affirmative defense section of this permit are met. Opacity exceedances during startup and shut down will be reviewed with enforcement discretion using the requirements of 9 VAC 5-40-20 E, which state that "At all times, including periods of startup, shutdown, soot blowing and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions." Since this is a new plant as of 1998, the existing source opacity exclusion is not applicable for any equipment at this facility.

In contrast, the similar startup, shut down, and malfunction opacity exclusion listed in 9 VAC 5-50-20 A 4, for emissions units that are new or modified since 1972, is SIP-approved and therefore applies to all emissions units at this facility.

#### **COMPLIANCE PLAN**

This facility is not subject to a compliance plan.

#### **INSIGNIFICANT EMISSION UNITS**

The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

Insignificant emission units include the following:

Unit No.	Emission Unit Description	Citation	Pollutants	Rated Capacity
IEM-1	Diesel tank	9 VAC 5-80-720 B	VOC	12,000 gals.
IEM-2	LP gas tanks (2)	9 VAC 5-80-720 B	VOC	1,000 gals. each
IEM-3	Diesel tank	9 VAC 5-80-720 B	VOC	275 gals.
IEM-4	Glass cutting operation	9 VAC 5-80-720 B	VOC	Cutting lubricant fluid is used in very small amounts
IEM-5	Glass sealing operation	9 VAC 5-80-720 B	VOC	2-part epoxy sealant; very low VOC content
IEM-6	Seal patching	9 VAC 5-80-720 B	VOC	Hot melt adhesive (essentially zero VOCs)
IEM-7	Inkjet coding of spacer frames	9 VAC 5-80-720 B	VOC	Quantities of ink used are very small



Unit No.	Emission Unit Description	Citation	Pollutants	Rated Capacity
IEM-8	Grille assembly	9 VAC 5-80-720 B	VOC	Very small quantities of VOCs are used
IEM-9	Grinding room cleaning vat (parts cleaner)	9 VAC 5-80-720 B	VOC	Quantities of VOCs used are very small
IEM-10	Grinding room saw blade sharpening lubricant	9 VAC 5-80-720 B	VOC	Quantities of VOCs used are very small
IEM-11	Octagon window assembly	9 VAC 5-80-720 B	VOC	Very small amounts of VOCs are used
IEM-12	Insulated glass maintenance shop parts cleaning sinks (2)	9 VAC 5-80-720 B	VOC	Safety-Kleen sink
IEM-13	Back-bedding compounds used throughout window assembly area	9 VAC 5-80-720 B	VOC	Very low VOC content
IEM-14	Casement assembly vinyl adhesive	9 VAC 5-80-720 B	VOC	Very low VOC content
IEM-15	Twin seal vinyl adhesive	9 VAC 5-80-720 B	VOC	Very low VOC content
IEM-16	Wood double hung; vinyl double hung sealant	9 VAC 5-80-720 B	VOC	Very low VOC content
IEM-17	V-wood backbedding (glass/vinyl)	9 VAC 5-80-720 B	VOC	Very low VOC content
IEM-18	Vinyl clad double hung adhesive cleaner	9 VAC 5-80-720 B	VOC	Very low VOC content
IEM-19	Twin seal vinyl	9 VAC 5-80-720 B	VOC	Very low VOC content
IEM-20	Vinyl clad double hung adhesive	9 VAC 5-80-720 B	VOC	Very low VOC content
IEM-21	Simulated Divided Light Solvent	9 VAC 5-80-720 B	VOC	Very low VOC content
IEM-22	Product development and testing lab	9 VAC 5-80-720 A	VOCs, others	NA
IEM-23	Drying ovens for spray priming operations	9 VAC 5-80-720 C	fuel burning emissions	<10 MMBtu/hr each; natural gas
IEM-24	Used Oil burner/Space Heater	9 VAC 5-80-720 C	fuel burning emissions	0.35 MMBtu

**CONFIDENTIAL INFORMATION**

The permittee did not submit a request for confidentiality. All portions of the Title V application

are suitable for public review.

#### **PUBLIC PARTICIPATION**

The draft/proposed permit was advertised for public notice in the *Martinsville Bulletin* on August 10, 2007. The required 30-day public notice period closed on September 10, 2007 with no comments received.

The EPA 45 day concurrent review period ran from August 10, 2007 through September 25, 2007. This permit was advertised for *concurrent review*. No comments were received from EPA on the draft/proposed permit.